



STATE OF MARYLAND

DMMH

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September 25, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:37 Reporting for the week ending 09/19/09 (MMWR Week #37)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

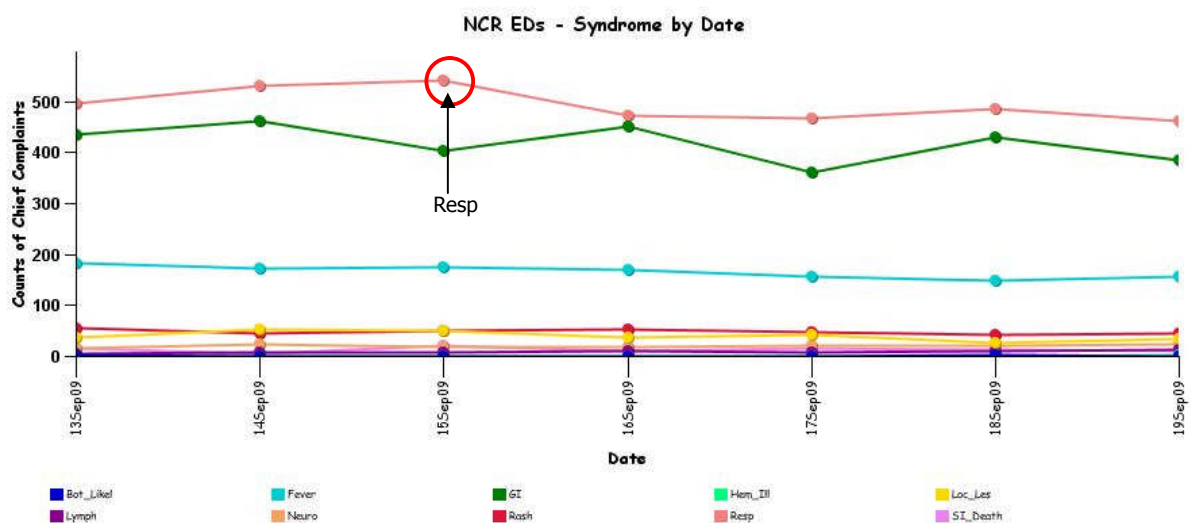
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.

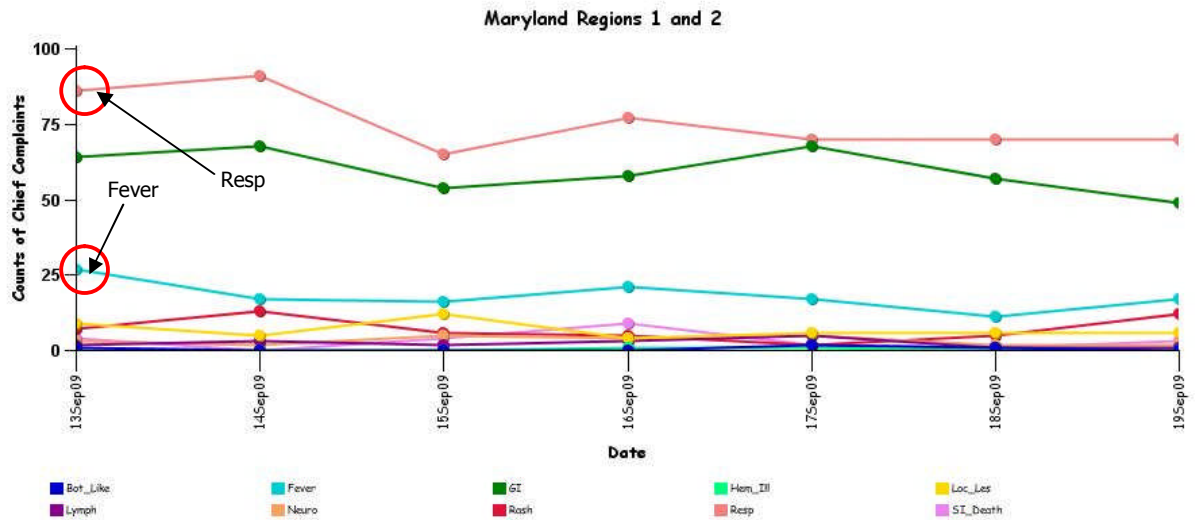
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

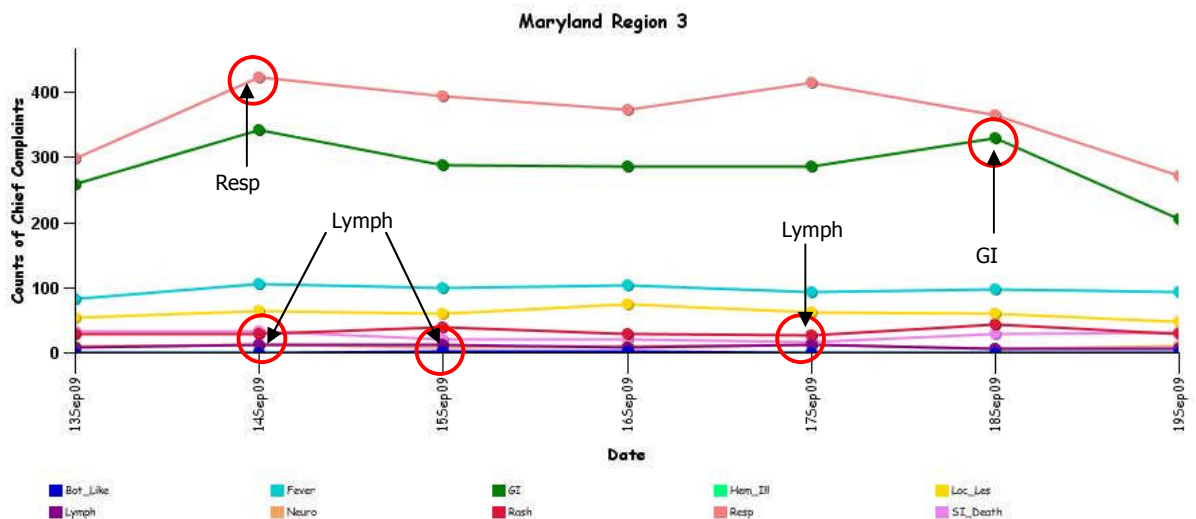


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

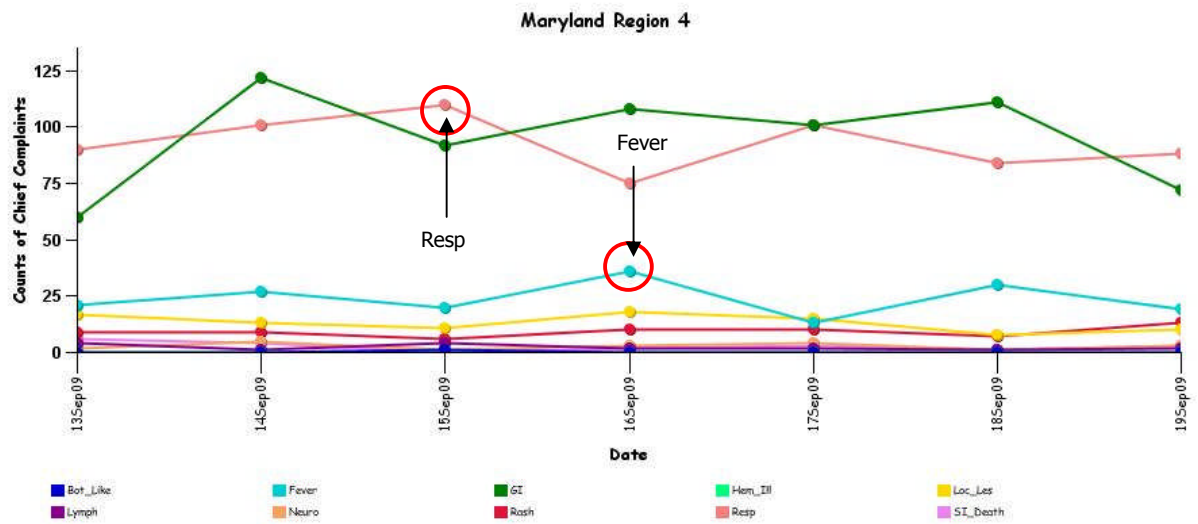
MARYLAND ESSENCE:



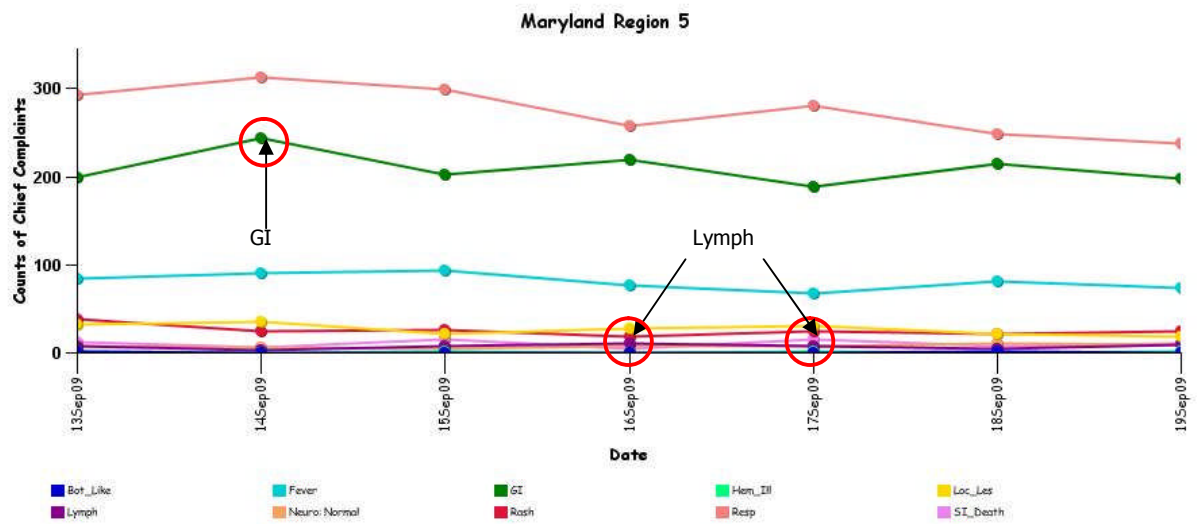
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



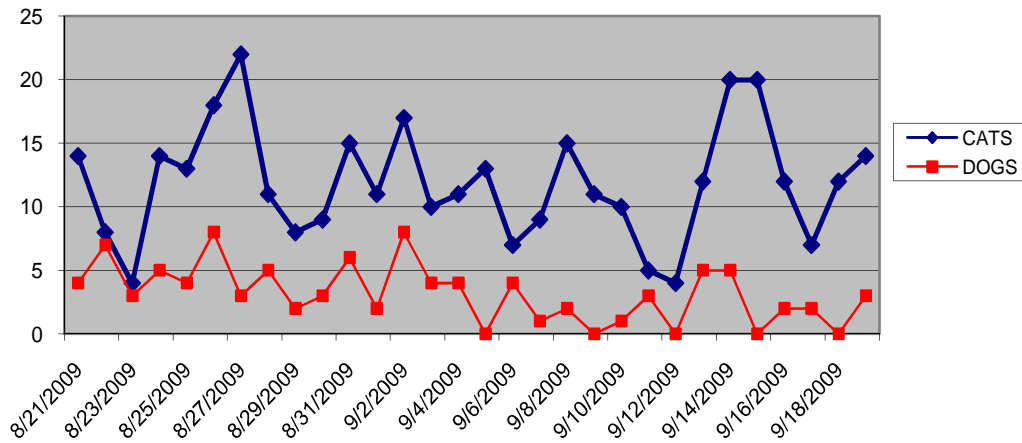
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

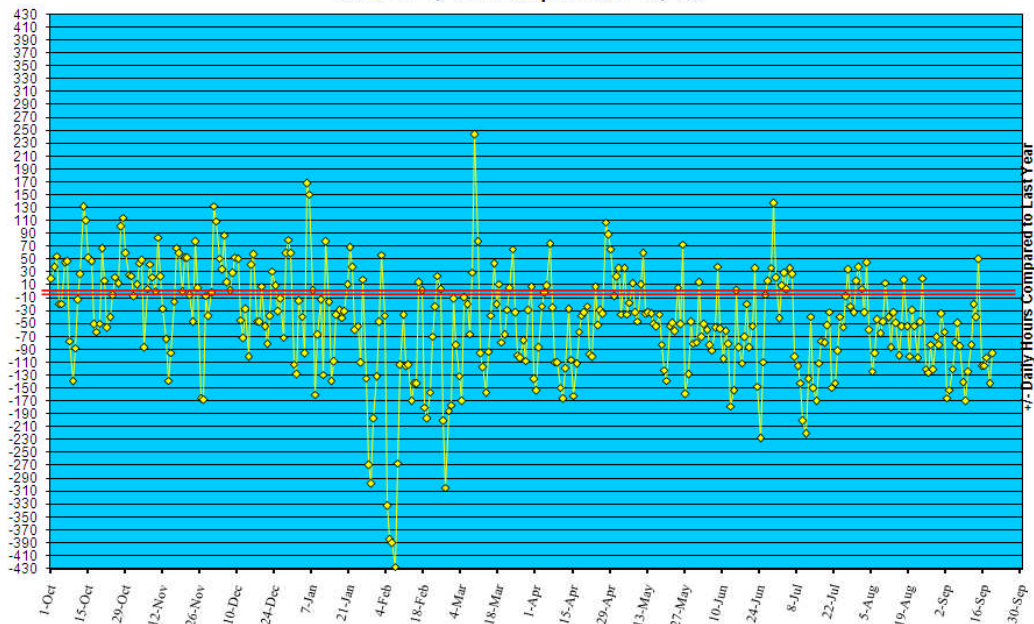
Dead Animal Pick-Up Calls to 311



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '08 to September 19, '09**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in August 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (Sep 13- Sep 19, 2009):	15	0
Prior week (Sep 06- Sep 12, 2009):	18	0
Week#37, 2008 (Sep 07- Sep 13, 2008):	17	0

OUTBREAKS: 12 outbreaks were reported to DHMH during MMWR Week 37 (September 13- 19, 2009):

1 Gastroenteritis outbreak

1 outbreak of GASTROENTERITIS associated with a Nursing Home

11 Respiratory illness outbreaks

5 outbreaks of ILI associated with Schools

1 outbreak of ILI associated with a Nursing Home

1 outbreak of ILI/PNEUMONIA associated with a Nursing Home

3 outbreaks of INFLUENZA associate with Schools

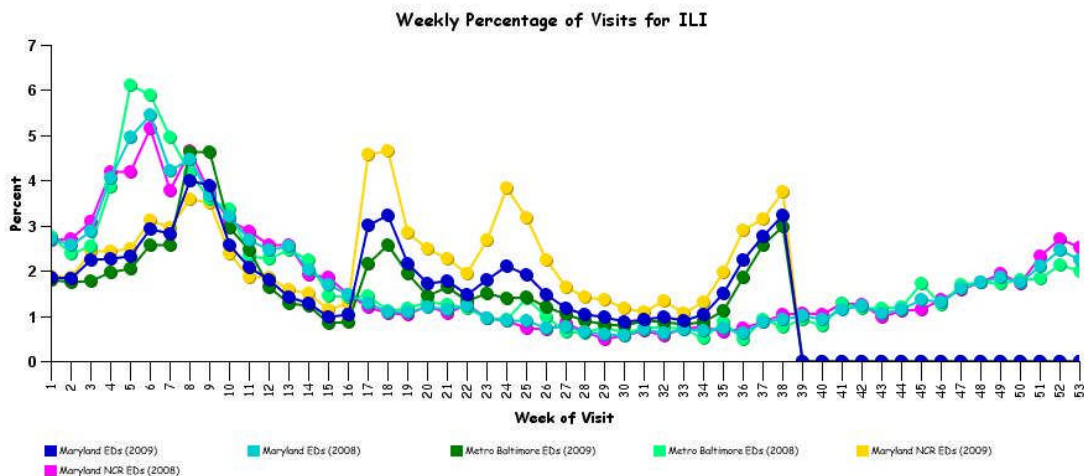
1 outbreak of INFLUENZA associated with a Hospital

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 37 is WIDESPREAD.

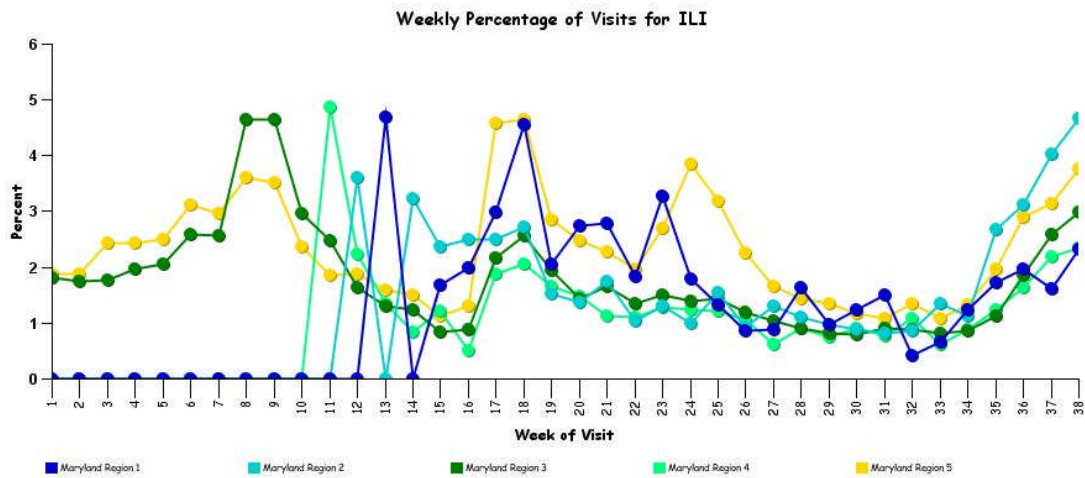
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



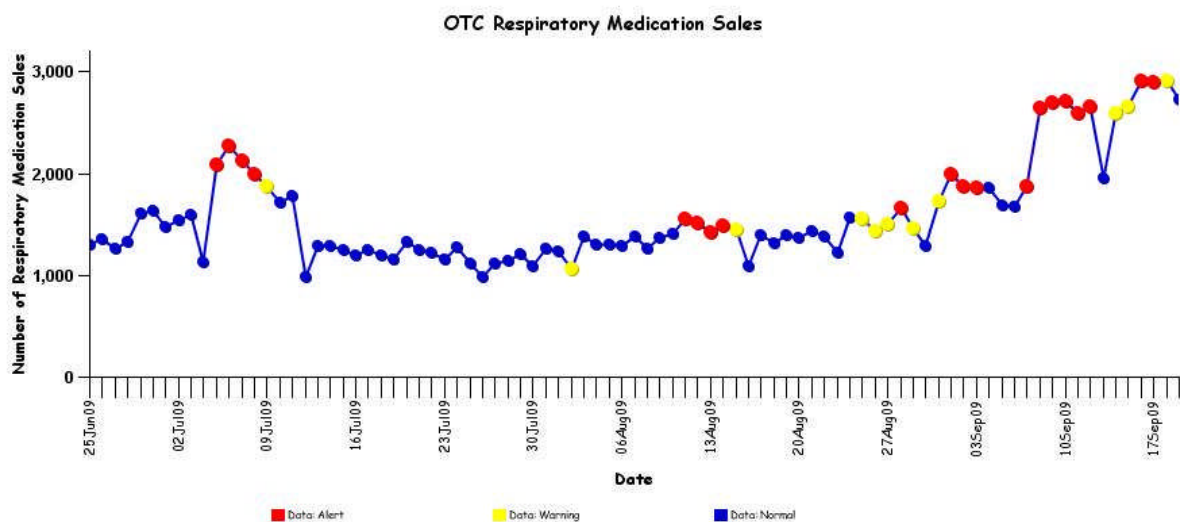
* Includes 2008 and 2009 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2009 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5
 2009 data for these regions are depicted separately to establish baselines, due to the addition of new hospitals in these regions.

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

****More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:**
[http://preparedness.dhmf.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex\(Vers7.2\).pdf](http://preparedness.dhmf.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Vers7.2).pdf)

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of August 31, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 440, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1), VACCINE DONATION: 19 Sep 2009, The 9-country initiative, announced 17 Sep 2009 by U.S. President Barack Obama, involves the USA, Britain, Australia, New Zealand, France, Italy, Switzerland, Brazil and Norway. The decision by the 9 countries, some of the largest users of flu vaccine globally, was hailed by the World Health Organization (WHO) as a commitment "to fairness in the sharing of a scarce resource." The 9 have said they will donate 10 percent of their pandemic vaccine to countries that don't have access to the shots on an ongoing basis as vaccine becomes available. "Given that current demand outstrips supply, these donations, together with the doses pledged by manufacturers, will help increase supplies of pandemic vaccines to populations that would otherwise not have access," the WHO said. Countries that want donated vaccine will have to assume all liability and release donor countries, manufacturers and the WHO from any claims in the event that adverse events are linked to use of the vaccine, the WHO says. It is currently unclear how much vaccine will be donated through the program with the 9 countries, WHO spokesperson Gregory Hartl said from Geneva. But whatever the figure is, it will be in addition to donations totaling 150 million doses pledged by Sanofi Pasteur (100 million doses) and GlaxoSmithKline (50 million doses).

INFLUENZA PANDEMIC (H1N1), WHO REPORT: 18 Sep 2009, In the temperate regions of the northern hemisphere, influenza activity remains widely variable. In North America, the US is reporting increases in influenza-like-illness activity above the seasonal baseline, most notably in the southern, southeastern, and parts of the northeastern US. In Canada, influenza activity remains low. In Europe and Central Asia influenza activity remains low overall, except in France, which is reporting increases in influenza-like-illness activity above the seasonal epidemic threshold. Geographically localized influenza activity is being reported in several countries (Austria, Georgia, Ireland, Luxembourg, Norway, Portugal, the Czech Republic, Cyprus, and Israel). In Japan, influenza activity remains stably increased above the seasonal epidemic threshold with the most notable increases being reported on the southern island of Okinawa. In the tropical regions of the Americas and Asia, influenza transmission remains active. Geographically regional to widespread influenza activity continues to be reported throughout much of South and Southeast Asia, with increasing trends in respiratory diseases being reported in India and Bangladesh. Geographically regional to widespread influenza activity continues to be reported for the tropical regions of Central and South America without a consistent pattern in the trend of respiratory diseases (continued increases are being reported in Bolivia and Venezuela). In the temperate regions of the southern hemisphere, influenza activity continues to decrease or has returned to the seasonal baseline in most countries. In Australia, later affected areas are also now reporting declining levels of influenza-like-illness. In South Africa, influenza activity appears to have recently passed over the 2nd peak. WHO Collaborating Centres and other laboratories continue to report sporadic isolates of oseltamivir resistant influenza virus; 26 such virus isolates have now been described from around the world, all of which carry the same H275Y mutation that confers resistance to the antiviral oseltamivir but not to the antiviral zanamivir. Pandemic (H1N1) 2009 influenza virus continues to be the predominant circulating influenza virus, both in the northern and southern hemisphere.

INFLUENZA PANDEMIC (H1N1), FDA VACCINE UPDATE: 17 Sep 2009, FDA approved these vaccines as a strain change to each manufacturer's seasonal influenza vaccine. There is considerable experience with seasonal influenza vaccine development, and production and influenza vaccines produced by this technology have a long and successful track record of safety and effectiveness in the US. The Influenza A (H1N1) 2009 Monovalent vaccines will undergo the usual testing and lot release procedures that are in place for seasonal influenza vaccines. Injectable Vaccines: Influenza A (H1N1) 2009 Monovalent Vaccine (CSL Limited), Influenza A (H1N1) 2009 Monovalent Vaccine (Novartis Vaccines and Diagnostics Limited), Influenza A (H1N1) 2009 Monovalent Vaccine (Sanofi Pasteur, Inc.). Intranasal Vaccine: Influenza A (H1N1) 2009 Monovalent Vaccine (MedImmune LLC).

Resources:

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmf.maryland.gov/swineflu/>

NATIONAL DISEASE REPORTS

HANTAVIRUS (New Mexico): 18 Sep 2009, A 22-year-old man from Rio Arriba County and a 61-year-old woman from Taos County have been hospitalized in Albuquerque with hantavirus infection. The New Mexico state Department of Health says New Mexico has reported 4 cases this year of hantavirus pulmonary syndrome [HPS]. A 25-year-old woman from Santa Fe County and a 65-year-old man from San Miguel County contracted the illness earlier. Both have recovered. New Mexico had 2 cases, both fatal, last year. Hantaviruses are contracted by breathing particles of rodent droppings, urine or saliva. Health Department veterinarian Paul Ettestad says most people get the deadly disease when cleaning out enclosed areas that have mouse droppings. Early symptoms include fever and muscle aches, a headache, nausea, vomiting, diarrhea, abdominal pain and a cough. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (North Dakota): 17 Sept 2009, Cattle have tested positive for anthrax in southwestern North Dakota, the 1st case in the state this year. State Veterinarian Susan Keller says the case was reported along the Hettinger-Slope county line. She says it's the 1st confirmed case in that region in several years. Anthrax usually appears in very wet or very dry conditions, when dormant bacteria spores in the soil are disturbed. Animals that consume the spores are exposed to the disease. Keller says ranchers who find dead livestock should consult their veterinarians before disposing of the carcasses. Keller says more than 500 confirmed animal deaths from anthrax were reported in North Dakota during an outbreak in 2005. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CAMPYLOBACTERIOSIS, UNPASTEURIZED MILK (Wisconsin): 17 Sep 2009, DNA test results and other evidence have now established that an outbreak of illness involving at least 35 people, the majority children and teens, was linked to drinking unpasteurized milk. Wisconsin food safety officials are cautioning consumers not to drink raw milk and farmers not to sell it to the public. "Laws requiring pasteurization of milk have been on the books for more than half a century, and there are good public health reasons for that," said Steve Ingham, head of the Food Safety Division in the Department of Agriculture, Trade and Consumer Protection [DATCP]. "We have very compelling evidence linking these illnesses to drinking raw milk. This is the 3rd major outbreak in Wisconsin since 2001 that has been tied to raw milk consumption." An epidemiologic investigation conducted by DATCP and the Wisconsin Department of Health Services has found 35 confirmed cases of *Campylobacter jejuni* infection, including 21 patients under age 18. One person was hospitalized. All the patients had consumed unpasteurized milk. 30 of the patients identified Zinniker Family Farm, Elkhorn, as the source of the raw milk. The farm sells raw milk through a "cow-share" program. 27 of the confirmed cases were in Walworth and Waukesha counties; the rest were in Racine and Kenosha counties. Additional testing showed that the *C. jejuni* isolated from 25 of the patients, all linked to Zinniker Family Farm, had the same DNA fingerprint. Manure samples obtained directly from milking cows on that farm also tested positive for *C. jejuni* with the same DNA fingerprint. Manure on the cows' udders or in the milking barn environment can contaminate milk. Pasteurization kills *C. jejuni* and other disease-causing bacteria in milk. *C. jejuni* is a bacterium that causes symptoms including diarrhea, abdominal cramping, fever, nausea and vomiting. Because Zinniker Family Farm sells milk to a defined customer list, there is little risk to the general public in this case. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, EQUINE, HUMAN (New Hampshire): 17 Sep 2009, Officials in Candia, New Hampshire decided to spray some areas of town after a 3-year-old resident fell ill with the eastern equine encephalitis virus. State health officials are calling the recent increase in EEE virus activity disturbing after a 3-year-old girl and a horse were diagnosed with the illness. Candia is taking a new look at plans to control the disease. The reviews of options started as a regular public meeting and ended with selectmen deciding unanimously to start spraying certain areas to kill mosquitoes, a swift sign of the seriousness of this year's EEE season. The 3-year-old is believed to have contracted EEE in the family's yard. She is recovering and is expected to be released from the hospital 15 Sep 2009. Other towns spray to control mosquitoes, but Candia does not. Three years ago, the town voted down a plan that would have paid to use the chemical spray in certain areas, including a park and near schools, but it's clear this year that EEE is back on the radar. An alpaca and a llama in Candia died this summer after being infected. A horse in Henniker was the latest victim of EEE. State health officials said they have growing concern over the new cases popping up and recently declared a public health threat in 59 communities. The state said its spread is confined to southern parts of the state so far, but officials don't know how far it could travel. State officials said they aren't sure what led to the sudden increase in incidents of the disease, but the wet summer might have helped mosquito populations grow. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

CRIMEAN-CONGO HEMORRHAGIC FEVER, FATAL (Afghanistan): 17 Sep 2009, A United States Army soldier from Covington County, Alabama, died Wednesday 16 Sep 2009 in Landstuhl, Germany, after succumbing to a virus he contracted from a tick bite while serving in Afghanistan. The 22-year-old sergeant from River Falls, Alabama, was stationed close to Afghanistan's capital of Kabul when the tick bit him, said a relative in Andalusia. "As far as we know, he was bitten by a tick that carried a virus," said his relative, who has been in contact with the soldier's family in Germany. "It put him into a coma for 5 days and they had him on a dialysis machine. He had a heart attack and passed away Wednesday morning." His relative said doctors determined the soldier contracted the rare Crimean-Congo hemorrhagic fever (CCHF) virus, which has been recorded in Africa, Asia and the Middle East. According to the World Health Organization's (WHO) Fact file, the mortality rate for the CCHF virus is 30 percent. The soldier's relative said that he may have been the 1st U.S. soldier to contract the virus in Afghanistan. "We have heard that he was going out into the countryside with some goat herdsman, and he picked it up there." According to the WHO Web site, following infection via

tick bite, the incubation period is usually one to 3 days, with a maximum of 9 days. The incubation period following contact with infected blood or tissues is usually 5 to 6 days, with a documented maximum of 13 days. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, PAPAYA (Australia): 17 Sep 2009, West Australians have been warned to thoroughly wash pawpaw (pawpaw refers to the tropical fruit papaya) following several cases of foodborne illness, including one in which a person required hospital treatment. The WA Department of Health issued a statement on 15 Sep 2009 saying 7 cases of salmonellosis linked to the tropical fruit had been uncovered over the past 6 weeks. WA environmental health director Jim Dodds said people should consult their doctor if they had eaten pawpaw and were suffering symptoms like diarrhea, abdominal cramps, nausea, vomiting, or fever and headaches. Mr Dodds said the department had launched an investigation into the poisoning. "Wash all pawpaws with running tap water immediately before eating, this includes pawpaw that has been cut prior to purchasing," Mr Dodds said. "After cutting pawpaw at home thoroughly wash hands, cutting boards, and knives." (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (India): 17 Sep 2009, As many as 63 persons in Keezhakarai and surrounding villages in Ramanathapuram district [Tamil Nadu] have been confirmed with chikungunya virus infection, deputy director of health Uma Maheswari said on 16 Sep 2009. The results of blood tests of the patients had been received from Virudhunagar Government Hospital and it had been confirmed that they had chikungunya virus infections, she said. Some of the patients got admitted into hospitals while several others were not willing to come even to the government hospital despite persuasion by the officials, she said. "As of now we cannot get the exact number of people affected by the chikungunya virus," she said, adding steps were being taken to prevent the spread of chikungunya virus. Meanwhile, patients with symptoms of dengue fever also had been admitted to some hospitals in the area, she added. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (Romania): 17 Sep 2009, A 2nd person has anthrax in Nichiteni in Botosani county in northeastern Romania. A 51-year-old man is in isolation in Botosani hospital after displaying symptoms of the disease. A 20-year-old man was hospitalized at the end of last week with symptoms after he helped slaughter an infected cow. Local authorities have extended preventive measures to stop the spread of the disease outside of the initial group of those exposed to it. The infected animal's owner called in veterinarians after the animal got sick and died. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

E. COLI O157, PETTING ZOO (Canada): 17 Sep 2009, 11 children and 2 adults came down with E. coli days after visiting the petting zoo at the Pacific National Exhibition. It was the 1st time the PNE has been linked to cases of E. coli since the agricultural fair opened in 1910. Thousands of children passed through the petting zoo every year during the fair. A spokesman for BC Children's Hospital in Vancouver confirmed 15 Sep 2009 3 of the 13 cases were serious enough to warrant hospital care. One child remained in hospital Tuesday in fair condition, and 2 children have been sent home. The ages of the victims ranged from 21 months to 69 years. The bacterium is more commonly transmitted in uncooked or undercooked meat. However, the pathogens can be transmitted through contact with fecal matter that is picked up by petting the animals or touching hand rails, fences or other surfaces. Reports of E. coli O157 linked to the PNE surfaced on the same days as reports of Great Britain's biggest ever outbreak spread from farm animals. A London newspaper reported 36 children had E. coli after visiting a petting farm in Surrey, England; 3 of the children were reported to be seriously ill. Vancouver's PNE and its petting zoo with sheep, goats, horses and a donkey were open from 22 Aug 2009 to 7 Sep 2009. The incubation period ranges from 2 to 10 days, but most people show symptoms, from mild diarrhea to extremely bloody and severe diarrhea, within 3 or 4 days. The 1st case was identified 10 Sep 2009, 3 days after the fair closed. An electronic alert was sent on 11 Sep 2009 to all public health departments in Canada notifying them of cases that were possibly linked to exposure to animals at the PNE and requesting information about any cases they had in their area. All the people with E. coli were in the barn. However, they may have also all eaten somewhere at the PNE. So far, the barn is the only common characteristic, but the investigation is continuing. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

E. COLI O157, CHILDREN'S FARM (United Kingdom): 13 Sep 2009, 12 children are in hospital, 4 seriously ill, after contracting E. coli in an outbreak at a children's farm. All the children are aged under 10. The Health Protection Agency says 36 cases have been reported so far. The children are thought to have caught the bug at Godstone Farm in Surrey, which also has a playground. The attraction receives up to 2000 visitors a day in the summer. It has been temporarily closed. The outbreak is believed to have started on 8 Aug 2009. The bacterium causes diarrhea and can lead to kidney failure, especially in young children. It is fatal in very rare cases. The director of the Surrey and Sussex Health Protection Unit, Dr Angela Iversen, said it was a "large outbreak" of E. coli. She said: "The farm owners are cooperating fully, and we are working closely with them and with colleagues across health and local authorities to investigate the source. Our advice is that the farm should remain closed to visitors while this work goes on." (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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